A NEW SPIDER MITE FROM VIRGINIA (ACARINA: TETRANYCHIDAE).

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The description of this new species of *Tetranychus* is based upon material which was collected from apple trees, but these mites also developed readily on several varieties of beans.

Tetranychus schoenei, new species.

Female.—Dorsal body setae fairly conspicuous, not arising from tubercles, 26 in number. Body rather widely oval, broadest across hind margin of cephalothorax, averaging 0.391 mm. in length and 0.235 mm. in width.[1] One perfect and one imperfect eye cornea on each side. Mandibular plate relatively broad, rounded anteriorly, at maturity. "Thumb" of palpus about four-fifths as long as its greatest thickness; bearing terminally a "finger" with subparallel sides and sharp terminal point, when viewed laterally; terminal "finger" nearly two-thirds as thick as "thumb" at tip; the dorsal sensilla slender and acute-pointed. Relative lengths of the joints of the foreleg as follows: Coxa, 19; trochanter, 9; femur, 31; patella, 14; tibia, 19; tarsus, 33. Tip of tarsus (female) bearing a claw which is bent strongly downward, and is cleft into three pairs of equal, needlelike spurs. Tarsus of leg I with two duplex setae dorsally, and with four setae proximad of these. The usual four tenent hairs arising from the onychium, a pair on each side of the claw base. The collar trachea of the conventional *Tetranychus* type, in the shape of a U with one long and one short arm.

Male.—Body smaller and narrower than in female, obpyriform; legs proportionately longer. Penis with inner lobe rodlike; basilar lobe seemingly an obtuse prominence; shaft about one-half to two-thirds again as long as its basal thickness, bent abruptly upward about 75° from axis of main shaft, expanding terminally to form the unusually prominent barb whose axial length well exceeds the length of the hook element and is fully one-half the length of the shaft proper; posterior portion of barb produced into an acuminate, ventrally-directed point, resembling the claw of a hammer; anterior portion of barb produced into a strong, rounded boss; axis of barb nearly parallel to that of shaft. Tarsal claw of foreleg with distal element relatively straight, the ventral position (analagous to the deflexed spurs in certain genera) of about equal thickness at base to that of distal spur and appearing to be 3-pointed terminally.

Type slide.—U. S. National Museum No. 1419.

The type material is from Winchester, Va., transferred to greenhouse at Blacksburg, Va., collected by W. J. Schoene.

The presenc species is perhaps closest to *Tetranychus atlanticus* McG. The two species may be distinguished as follows:

[1] Average measurements of a series of individuals.


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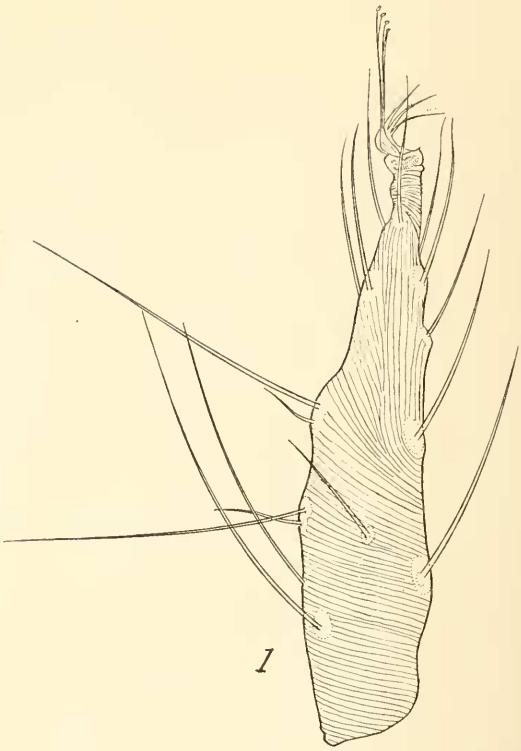
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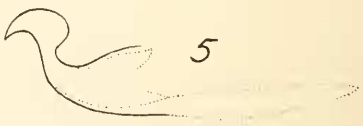
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Tetranychus atlanticus, McG.

Palpus of female with terminal sensilla rotundate terminally; dorsal sensilla unusually thick. Axial length of barb of penis about one-third that of shaft; axis of barb directed somewhat upward posteriorly. Ventral portion of tarsal claw of ♂ leg I much thicker than dorsal spur of claw.

Tetranychus schoenei, n. sp.

Palpus of female with terminal sensilla sharply angled terminally; dorsal sensilla very slender. Axial length of barb of penis fully one-half that of shaft; axis of barb about parallel to that of shaft. Ventral portion of tarsal claw of ♂ leg I about equal in thickness to that of dorsal spur of claw.

Explanation of Plate.

Tetranychus schoeni.

Fig. 1. Tarsus of right leg I of female, viewed from outside.
Fig. 2. Tip of tarsus of leg I of male, viewed laterally.
Fig. 3. Terminal portion of palpus (♀), viewed laterally.
Figs. 4 and 5. Lateral view of penis.
(Fig. 4 from material from bean; fig. 5 from material from apple.)

MINUTES OF THE 522D REGULAR MEETING OF THE ENTOMOLOGICAL SOCIETY OF WASHINGTON, NOVEMBER 6, 1941.

The 522d regular meeting of the Society was held at 8 P. M., Nov. 6, 1941, in Room 43 of the National Museum. Twenty visitors and 52 members attended. President Ewing called the meeting to order, and Vice-President Cory presided during the latter part of the program.

The following Nominating Committee was appointed by the President: B. A. Porter; F. C. Bishopp; J. S. Wade; S. B. Fracker, Chairman.

The regular program was as follows:

1. The winter survival of insects. Lewis P. Ditman, University of Maryland.

Dr. Ditman pointed out that insects which overwinter may do so in one of three ways, migrate, endure the cold (as the honey bee) or hibernate. The physiological condition of insects which hibernate was the main subject of discussion. Methods were discussed for determining the cold hardiness of insects and results of tests on insects in the active stage (i. e. during the summer) were compared with those on insects in a state of hibernation. It is quite apparent from the results that some insects are remarkably well adapted to withstand cold temperatures, while others succumb at warmer temperatures. (Secretary's abstract.)

2. Electron micrographs of insect cuticle and tracheae, with a discussion of the application of electron microscopy to entomology. A. Glenn Richards, Jr., University of Pennsylvania.

Most of the experimental work discussed was done on the cuticular layer of the pronotum of the cockroach. Sections as thin as one-tenth of a micron were